

990323

09/761,219

## COMPLETE LISTING OF CLAIMS

Please cancel claims 6, 7, and 14-29 without prejudice. Please rewrite claims 1, 8, and 13 as indicated below.

1. (Currently amended) An efficient system for determining if a paging channel should be received and processed via a wireless communications device based on a quick paging channel in a wireless communications system comprising:

first means for receiving an electromagnetic signal including pilot signal and quick paging signal components;

second means for providing one or more initial quality parameters indicative of a quality of a signal environment in which said electromagnetic signal is propagating based on said pilot signal, said one or more initial quality parameters associated with a first symbol of said quick paging signal;

third means for ascertaining whether a second symbol of said quick paging channel signal or said subsequent paging channel should be processed based on said one or more initial quality parameters and providing a first indication in response thereto, wherein said third means further includes means for providing a third indication indicative as to whether said wireless communications device should be placed in a sleep state based on a comparison of a first decision metric to a second decision threshold, wherein said first decision metric (D<sub>1</sub>) is described by the following equation:

$$D_1 = \frac{OP_1}{E_{pilot1}}$$

where D<sub>1</sub> is said first decision metric; OP<sub>1</sub> is a dot product, cross product, or a combination thereof of said first symbol with an estimate of said pilot signal associated with said first symbol; and E<sub>pilot1</sub> is an energy of said pilot signal associated with said first symbol; and

fourth means for determining if said subsequent paging channel should be processed based on a second quality parameter and a combined decision metric associated with both said first symbol and said second symbol when said first indication indicates that said second symbol should be processed and providing a second indication response thereto.

990323

09/761,219

2. (Original) The system of Claim 1 wherein said subsequent paging channel is a primary paging channel, and said wireless communications device is a dual paging channel wireless communications system.

3. (Original) The system of Claim 1 wherein said quick paging channel signal includes a dual slot having said first symbol and said second symbol.

4. (Original) The system of Claim 3 wherein said third means includes means for comparing a first quality parameter of said one or more initial quality parameters to a first comparison threshold and providing said first indication in response thereto.

5. (Original) The system of Claim 4 wherein said first quality parameter ( $CSI_1$ ) is computed in accordance with the following equation:

$$CSI_1 = \frac{E_{pilot1}}{I_{o1}}$$

where  $E_{pilot1}$  is the energy of the portion of said pilot signal that is received simultaneously with said first symbol, and  $I_{o1}$  is total the energy of the portion of said received electromagnetic signal, including noise and interference, received simultaneously with said first symbol.

Claims 6-7. (Cancelled)

8. (Currently amended) The system of Claim 6 Claim 5 wherein said third means further includes means for placing said wireless communications device in a sleep state when said third indication indicates that said wireless communications device should be placed in a sleep state

9. (Original) The system of Claim 8 wherein said third means further includes means for comparing a third quality parameter to a fourth decision threshold when said third indication indicates that said wireless phone should not be immediately placed in a sleep state and providing said first indication in response thereto.

990323

09/761,219

10. (Original) The system of Claim 9 wherein said third quality parameter is representative of an energy of said pilot signal associated with said first quick paging channel signal.

11. (Original) The system of Claim 8 wherein said fourth means includes means for using said second quality parameter and a fourth comparison threshold to provide said second indication.

12. (Original) The system of Claim 11 wherein said second parameter ( $CSI_2$ ) is computed in accordance with the following equation:

$$D_1 = \frac{Q_P}{E_{pilot1}},$$

where  $I_{02}$  is a total received signal energy of a first portion of said received electromagnetic signal associated with said second symbol;  $E_{pilot2}$  is an estimate of the energy of said pilot signal associated with said first portion.

13. (Currently amended) The system of Claim 12 An efficient system for determining if a paging channel should be received and processed via a wireless communications device based on a quick paging channel in a wireless communications system comprising:

first means for receiving an electromagnetic signal including pilot signal and quick paging signal components;

second means for providing one or more initial quality parameters indicative of a quality of a signal environment in which said electromagnetic signal is propagating based on said pilot signal, said one or more initial quality parameters associated with a first symbol of said quick paging signal;

third means for ascertaining whether a second symbol of said quick paging channel signal or said subsequent paging channel should be processed based on said one or more initial quality parameters and providing a first indication in response thereto; and

fourth means for determining if said subsequent paging channel should be processed based on a second quality parameter and a combined decision metric associated with both said first symbol and said second symbol when said first indication indicates that said second symbol

990323

09/761,219

should be processed and providing a second indication response thereto, wherein said one or more combined decision metrics includes the following metric (D):

$$D = \frac{\frac{QP_1}{\sigma_1^2} + \frac{QP_2}{\sigma_2^2}}{\frac{E_{pilot1}}{\sigma_1^2} + \frac{E_{pilot2}}{\sigma_2^2}},$$

where  $\sigma_1^2$  is the noise power associated with a first portion of said received signal containing said first symbol;  $\sigma_2^2$  is the noise power associated with a second portion of the received signal containing said second symbol;  $QP_1$  is a dot product, cross product, or a combination thereof of said first symbol with an estimate of said pilot signal associated with said first symbol; and  $QP_2$  is a dot product, cross product, or a combination thereof of said second symbol with an estimate of said pilot signal associated with said second symbol,  $E_{pilot1}$  is an energy of said first portion of said pilot signal; and  $E_{pilot2}$  is an energy of said second portion of said pilot signal.

Claims 14-29. (Cancelled)